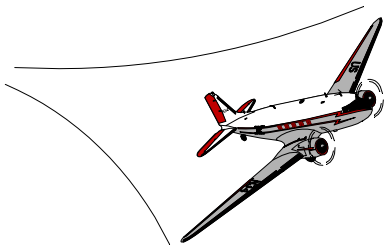
SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC



U.S. Department of Transportation

Federal Aviation Administration

CE-05-28
January 21, 2005

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This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) informs you, registered owners and operator of **Air Tractor Model AT-502, AT-502A, AT-502B, and AT-503A airplanes**, of an alternative method of compliance (AMOC) to FAA's Airworthiness Directive (AD) 2002-26-05. This AMOC allows an inspection program instead of the safe life replacement program imposed by AD 2002-26-05. This AMOC does not apply to those airplanes that incorporate or have incorporated Marburger Enterprises, Inc. winglets.

Background

The FAA issued AD 2002-26-05 to prevent fatigue cracks from occurring in the wing lower spar cap before the established safe life is reached. Fatigue cracks in the wing lower spar cap, if not detected, and corrected, could result in the wing separating from the airplanes during flight. AD 2002-26-05 established a safe life with inspection, replacement/modification, and result reporting requirements.

The following service documents include procedures and information on a repetitive inspection program for the Air Tractor Model AT-502, AT-502A, AT-502B, and AT-503A airplanes:

- Snow Engineering Drawing 20989, Sheets 1 through 9, Revision A, dated August 12, 2004;
- Snow Engineering Service Letters #233 and #234, both dated May 18, 2004; and
- Snow Engineering Process Specification #197, dated June 4, 2002.

The FAA has developed a schedule and program that would allow owners and operators of certain Air Tractor Model AT-502, AT-502A, AT-502B, and AT-503A airplanes to operate past the scheduled safe life time in AD 2002-26-05.

The AMOC

The schedule and program referenced above is approved as an AMOC to AD 2002-26-05. FAA letter, dated January 13, 2005, outlines the criteria of and specifications of this AMOC, copy attched.

For Further Information Contact

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U.S. Department
of Transportation
**Federal Aviation
Administration**

Southwest Region
Arkansas, Louisiana,
New Mexico, Oklahoma,
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Airplane Certification Office
ASW-150
2601 Meacham Blvd
Fort Worth, TX 76137

January 13, 2005

To: Docket No.2002-CE-54-AD

Subject: Alternative Method Of Compliance (AMOC)
Airworthiness Directive (AD) 2002-26-05, Amendment 39-12991

The Approval

This letter is issued to approve and outline an alternative method of compliance (AMOC) to AD 2002-26-05, Amendment 39-12991. The approval is granted for the following airplanes:

Model	***Serial Numbers***
AT-502	*0003 through 0236*
AT-502A	*all serial numbers beginning with 0158*
AT-502B	*0187 through 0654, except for 0643*
AT-502B	*all serial numbers beginning with 0655 and 0643*
AT-503A	*all serial numbers beginning with 0067*

For Additional Information:

Contact Mr. Rob Romero, Aerospace FAA, Fort Worth Airplane Certification Office, 2601 Meacham Boulevard, Fort Worth, Texas 76193-0150; telephone: (817) 222-5102; facsimile: (817) 222-5960; e-mail: Robert.A.Romero@faa.gov.

Specifics of the AMOC

For all airplanes listed in AD 2002-26-05; except for Model AT-502B airplanes, serial number 0643 and all serial numbers beginning with 0655; you may begin a repetitive inspection interval program as an alternative to the safe life requirement of AD 2002-26-05 with the following provisions:

1. Upon accumulating 1,600 hours time-in-service (TIS), inspect the outboard two lower spar cap bolt holes following Snow Engineering Process Specification PS 197, dated June 4, 2002.

2. Repeat these inspections at intervals of (as applicable):

a. 800 hours TIS (all serial numbers except as noted in b).

b. 600 hours TIS (serial numbers AT502B-0187 through AT502B-0618 that do not have the part number 20998-1/-2 web plate installed).

c. If the outboard two lower spar cap bolt holes have been cold worked following Snow Engineering Service Letter # 233 or #234, both dated May 18, 2004, then you may double (1,600 hours TIS or 1,200 hours TIS, as applicable) the inspection interval (See NOTE 1 – re: mid cycle cold work).

3. If at any time a crack is found, and:

   a. If the crack indication goes away by drilling the hole to the next larger size, then you may modify your center splice following Air Tractor Drawing 20989. After modification, proceed to step 5.

   b. If the crack indication does not go away, then you must replace your lower spar caps before further flight.

4. For all serial numbers, upon accumulating 4,000 hours TIS, you must modify your center splice connection following ATI drawing 20989, unless previously done. Prior to the modification perform an eddy-current inspection following PS #197 (See NOTE 2).

5. Upon accumulating 1,600 hours TIS after modification, inspect the outboard two lower spar cap bolt holes following Snow Engineering Process Specification PS 197.

6. Repeat the inspection at intervals of:

   a. 800 hours TIS; or

   b. 1,600 hours TIS if the outboard two lower spar cap bolt holes have been cold worked following Snow Engineering Service Letter #233 or #234, both dated May 18, 2004 (See NOTE 1).

   c. If at any time a crack is found, you must replace before further flight your lower spar caps, splice blocks, and wing attach angles and hardware.

7. Upon accumulating 8,000 hours TIS, you must replace before further flight your lower spar caps, splice blocks, and wing attach angles (P/N 20693-1) and associated hardware.

NOTE 1: If you decide to cold work your bolt holes following Snow Engineering Service Letter #233 or #234, both dated May 18, 2002, at a TIS that does not coincide with a scheduled inspection following this AD, then inspect at the time of cold working and then begin the 1,600/1,200 hour TIS inspection intervals.

NOTE 2: If you have modified your airplane prior to accumulating 4,000 hours TIS after modification, then you may continue to fly your airplane past 4,000 hours provided you cut your

inspection intervals in half. Upon accumulating 8,000 hours TIS after modification, you must comply with step 7 above. See example:

EXAMPLE: An AT-502B had the two-part modification installed at 3,000 hours TIS and the bolt holes have not been cold worked. The first inspection would occur at 4,600 hours TIS, followed by inspections at 5,400, 6,200 and 7,000 hours TIS. This airplane may continue to fly if inspected again at 7,400 and 7,800 hours TIS (this is at 400 hour TIS intervals instead of 800 hours TIS intervals). Upon accumulating 8,000 hours TIS, you must modify the wing following Step 7 above.

8. If you have elected to use repetitive inspections in this AMOC instead of the safe life, you must make a logbook entry as follows:

"Following AD 2002-26-05, at XXXX {insert hours TIS} hours TIS an eddy-current inspection has been performed. As of now, the safe life listed in the AD no longer applies to this airplane. This airplane must be eddy-current inspected at intervals not to exceed {800/600/1,200/1,600 as applicable} hours TIS."

For Model AT-502B airplanes, serial number 0643 and all serial numbers beginning with 0655, you may extend your safe life as an alternative to the safe life requirement of AD 2002-26-05, as follows:

1. Upon accumulating 2,100 hours TIS, perform an eddy-current inspection of the outboard two bolt holes of the lower spar wing center splice following PS #197, dated June 4, 2002.

2. If no cracks are found, then you may fly an additional 1,000 hours TIS.

3. You must replace the lower spar caps before further flight if cracks are found or upon accumulating the additional 1,000 hours TIS, whichever occurs first.

Sincerely,

/s/ Michele M. Owsley
Manager, Airplane Certification Office,
Rotorcraft Directorate,
Aircraft Certification Service